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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,334

05/22/2006

Peter Marten Van Der Horst

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LEGAL & IP

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EXAMINER

ADMASU, ATNAF S

ART UNIT

PAPER NUMBER

1796

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,334	Applicant(s) VAN DER HORST, PETER MARTEN	
	Examiner ATNAF ADMASU	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 1 and 2 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/11/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1 – 6 are pending as amended on 12 April 2006.

Information Disclosure Statement

2. The information disclosure statement submitted on 11 July 2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statements.

Claim Objections

3. Claims 1 and 2 are objected to because of the following informalities: In claim 1, line 6, the less than sign in "...DP of 1,500-<3,000..." and in claim 2, line 5, the greater than sign in "...DP of >3,000-4000..." are suggested to be deleted.
- 4.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by Canadian Patent Publication CA2508234. US Patent Publication 2006/0029711 (Theeuwes hereinafter) is the US equivalent of CA2508234 and all citations herein are taken therefrom.

Theeuwen teaches the use of a carboxymethyl cellulose (CMC) for preparing fruit-based products, wherein the CMC is characterized by forming a gel at 25C° after high shear dissolution in a 0.3 wt % aqueous sodium chloride solution, the final content of the CMC in the aqueous sodium chloride solution being 1 wt % for a CMC having a degree of polymerization (DP) of >4,000, 1.5 wt % for a CMC having a DP of 3,000-4,000, 2 wt % for a CMC having a DP of 1,500-3,000, and 4 wt % for a CMC having a DP of <1,500, the gel being a fluid having a storage modulus (G') which exceeds the loss modulus (G'') over the entire frequency region of 0.01-10 Hz when measured on an oscillatory rheometer operating at a strain of 0.2 (Abstract).

Theeuwen further discloses the use of these CMC mixtures lead to an improvement in gelling properties, flow properties, consistency, and stability. By the use of these CMCs fluid loss or syneresis can also be prevented ([0012]).

Theeuwen's teachings are pertinent to the particular problem with which the instant application is concerned, i.e., to provide a water-based drilling fluid composition comprising a carboxymethyl cellulose which has good fluid loss reduction and improved pseudoplastic viscosity and gelling properties compared to conventional CMC (see instant application [0011] and [0014]).

7. Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by Canadian Patent Publication CA2463107. US Patent Publication 2005/0031757 (Boevink hereinafter) is the US equivalent of CA2463107 and all citations herein are taken therefrom.

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Boevink teaches the use of a carboxymethyl cellulose (CMC) wherein the CMC is characterized by forming a gel at 25C° after high shear dissolution in a 0.3 wt % aqueous sodium chloride solution, the final content of the CMC in the aqueous sodium chloride solution being 1 wt % for a CMC having a degree of polymerization (DP) of >4,000, 1.5 wt % for a CMC having a DP of 3,000-4,000, 2 wt % for a CMC having a DP of 1,500-3,000, and 4 wt % for a CMC having a DP of <1,500, the gel being a fluid having a storage modulus (G') which exceeds the loss modulus (G'') over the entire frequency region of 0.01-10 Hz when measured on an oscillatory rheometer operating at a strain of 0.2 (Abstract).

Boevink further discloses the use of these CMC mixtures lead to an improvement in gelling properties and not give rise to fluid loss, syneresis, and jelly formation ([0009])...

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 3 – 6 are rejected under 35 U.S.C. 103(a) as being obvious over Boevink in view of US Patent 6,281,172 (Warren hereinafter)...

Boevink teaches the use of carboxymethyl cellulose in processed meat products and can be used advantageously to produce higher water binding capacity and that does not give rise to fluid loss and/or jelly formation ([0013]).

Boevink does not expressly disclose the carboxymethyl composition is utilized in a drilling fluid.

Warren teaches drilling fluids are generally composed of liquids, e.g., water, petroleum oils, synthetic oils and other organic liquids; dissolved inorganic and organic additives; and suspended, finely divided solids of various types (col. 1, lines 36 – 39). Clay and polymer make up low solid in drilling fluid to enhance viscosity and filtration controls (col. 2, lines 57 – 59). Bentonite, which is a smectite type clay is by far the most commonly used clay in grilling muds because it provides excellent rheological and filtration properties to the mud, especially in combination with electrolytes like carbomethyl cellulose (CMC) (col. 3, lines 5 – 10). Boevink's teaching of carboxymethyl cellulose in processed meat to advantageously produce higher water binding capacity and not giving rise to a fluid loss is analogous to Warren's clay and polymer that make up low solid in drilling fluid to enhance viscosity and filtration controls.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize Boevink's carboxymethyl cellulose in the bentonite comprising drilling fluid of Warren. The rationale to do so would have been the motivation provided by the teaching of Warren that to do so would produce a good dispersed bentonite/CMC suspension that gives a good build-up of filter-cake and an excellent fluid loss reduction performance (Warren, col. 3, lines 63 – 66).

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1,2 and 3 - 6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 10/537,199 and 3-6 over copending application No.

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10/537,199 in view of US Patent 6,281,172. Although the conflicting claims are not identical, they are not patentably distinct from each other because 11/537,199 and 11/575,334 are related to CMC composition, both comprising exact CMC composition would render the present claims obvious to one of ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection.

13. Claims 1, 2 and 3-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 10/490,998 and 3-6 over copending application No. 10/490,998 in view of US Patent 6,281,172. Although the conflicting claims are not identical, they are not patentably distinct from each other because 11/490,998 and 11/575,334 are related to CMC composition, both comprising exact CMC composition would render the present claims obvious to one of ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection.

Conclusion

14. Branscum (US Patents 5028342 and 3,668,122), Sauber (US Patents (3,954,628 and 4,123,366) and Opitz (US Patent 5,028,342), cited as an X-reference on the international search report for PCT/EP04/11827, from which the instant application claims priority, teach water-based drilling fluid composition comprising carboxymethyl cellulose but fails to teach the degrees of decompositions for ranges of CMC concentrations.

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15.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATNAF ADMASU whose telephone number is (571)270-5465. The examiner can normally be reached on M-F 8:00-5:30, Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ASA/

/Timothy J. Kugel/
Primary Examiner, Art Unit 1796